

Due to a very complex file history, in the interest of expediting the issuance of allowable claims, Applicant cancel all the pending claims and request the Examiner enter a further set of new claims: new Claims 260-276. It is the Applicant's intent to review the cancelled claims and reintroduce these claims in one or more continuation type application(s).

Support for new Claim 260 is found, for example, in original Claim 173 as filed; and support for the recitation "wherein the oligonucleotide is 4 to 60 nucleotides long" is found, for example, in page 41, line 3; and support for the recitation "and comprises up to about 15% adenosine" is found, for example, in page 40, lines 24-25.

Support for new Claims 261, 262 and 264 is found, for example, in page 40, lines 25-26.

Support for new Claim 263 is found, for example, in Claim 4 as originally filed.

Support for new Claim 265 is found, for example, in page 13-40, where SEQ ID NOs: 1-996 where the oligonucleotides taught range from 9 to 51 nucleotides long.

Support for new Claim 266 is found, for example, in page 52, line 16 and page 53, line 2 where in Example 1 the oligonucleotides taught are 18 or 21 nucleotides long.

Support for new Claim 267 is found, for example in Claim 180 as original filed.

Support for new Claim 268 is found, for example in Claim 179 as original filed.

Support for new Claim 269 is found, for example in Claim 181 as original filed.

Support for new Claim 270 is found, for example in Claim 182 as original filed.

Support for new Claim 271 is found, for example in Claim 184 as original filed.

Support for new Claim 272 is found, for example in Claim 186 as original filed.

Support for new Claim 273 is found, for example in Claim 195 as original filed.

Support for new Claim 274 is found, for example in Claim 198 as original filed.

Support for new Claim 275 is found, for example in Claim 205 as original filed.

Support for new Claim 276 is found, for example in Claim 219 as original filed.

Applicant has enclosed a complete set of the new claims.

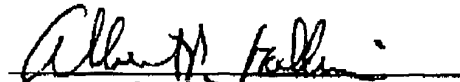
Applicant respectfully contends that the amendments will place the case in condition for allowance. No new matter is added in any of the above amendments and the Examiner is respectfully requested to enter the amendments and reconsider the application.

CONCLUSION

In view of the foregoing amendment and remarks, the Applicant believes that the application is in good and proper condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at (650) 463-8109.

Respectfully submitted,

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CLEAN VERSION OF CLAIMS AS AMENDED

In the Claims

Claims 108-132, 134-141, 143-144, 146, 148, 151-153, 158-159, 161-163, 164-173, 178-181, 184-189, 191-193, 195-198, and 200-259 are cancelled.

The following new Claims 260-276 are added:

260. (New) An in vivo method of delivering a pharmaceutical composition to a target polynucleotide comprising administering to the airways of a subject said pharmaceutical composition of a respirable or inhalable particle size comprising a nucleic acid that comprises at least one oligonucleotide effective to alleviate hyper-responsiveness to adenosine or increased levels of adenosine, or to alleviate bronchoconstriction, asthma, or lung allergy, wherein the oligonucleotide is 4 to 60 nucleotides long and comprises up to about 15% adenosine.

261. (New) The method of claim 260, wherein the oligonucleotide comprises up to about 10% adenosine.

262. (New) The method of claim 261, wherein the oligonucleotide comprises up to about 5% adenosine.

263. (New) The method of claim 262, wherein the oligonucleotide comprises up to about 3% adenosine.

264. (New) The method of claim 263, wherein the oligonucleotide is adenosine-free.

265. (New) The method of claim 260, wherein the oligonucleotide is 9 to 51 nucleotides long.

266. (New) The method of claim 265, wherein the oligonucleotide is 18 or 21

nucleotides long.

267. (New) The method of claim 260, wherein the pharmaceutical composition is administered by inhalation directly to the airway or lung of the subject.

268. (New) The method of claim 260, wherein the oligonucleotide is antisense to the initiation codon, the coding region or the 5' or 3' intron-exon junction of a gene encoding a protein associated with hyper-responsiveness to adenosine, hyper-responsiveness to increased levels of adenosine, hyper-responsiveness to increased levels of an adenosine receptor, bronchoconstriction, asthma, lung allergy, or lung inflammation, or is antisense to the corresponding mRNA thereof.

269. (New) The method of claim 260, wherein the particle size is about 0.5 μm to about 10 μm in size.

270. (New) The method of claim 260, wherein the particle size is 10 μm to 500 μm in size.

271. (New) The method of claim 260, wherein the pharmaceutical composition further comprises a surfactant.

272. (New) The method of claim 260, wherein the hyper-responsiveness to adenosine, hyper-responsiveness to increased levels of adenosine, hyper-responsiveness to increased levels of an adenosine receptor, bronchoconstriction, asthma, lung allergy, or lung inflammation is associated with allergy, chronic obstructive pulmonary disease, asthma, acute respiratory distress syndrome, respiratory distress syndrome, cystic fibrosis, or a side effect of adenosine administration.

273. (New) The method of claim 260, wherein the nucleic acid is administered in an amount of about 0.005 to about 150 mg/kg body weight.

274. (New) The method of claim 260, wherein said method is a prophylactic or therapeutic method.

275. (New) The method of claim 260, wherein the oligonucleotide is antisense to the initiation codon, the coding region or the 5' or 3' intron-exon junctions of a gene encoding an adenosine A₁ receptor, adenosine A_{2b} receptor or adenosine A₃ receptor.

276. (New) The method of claim 260, wherein the oligonucleotide comprises the sequence of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5 or SEQ ID NO: 7 to SEQ ID NO: 966, or SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5 or SEQ ID NO: 7 to SEQ ID NO: 966, wherein at least one mononucleotide is linked or modified by one or more of phosphorothioate, phosphorodithioate, methylphosphonate, phosphoramidate, boranophosphate, phosphotriester, formacetal, 2'-O-methyl, thioformacetal, 5'-thioether, carbonate, 5'-N-carbamate, sulfate, sulfonate, sulfamate, sulfonamide, sulfone, sulfite, sulfoxide, sulfide, hydroxylamine, methylene (methylimino) and methyleneoxy (methylimino), terminal 1,3-propanediol, terminal dodecanol, 2'-O-methoxyethyl, C-5-propynyl pyrimidine, C-5 methyl cytidine, C-5 ethynyl pyrimidine, 2' propoxy, C-18 amine, N3'-P5 phosphoramidates, 3'-alkylamino, 2'-fluoro pyrimidine, 5-fluoro pyrimidine, 5-iodo pyrimidine, 5-bromo pyrimidine, 2'-borano, C-5 hexynyl pyrimidine, 2'-O-(2-methoxy)ethyl, 2'-O-aminopropyl, 5-(phenylethyl) or a peptide nucleic acid interbase linkages or conjugated to a polyethylene glycol, cholesterol, cholesteryl, dehydroepiandrosterone, dehydroepiandrosterone sulfate, dehydroepiandrosterone sulfatide, ubiquinone, dolichol, poly L-lysine, sulfatidic acid or a fatty acid.